

**REMARKS**

Review and reconsideration on the merits are respectfully requested.

Applicants have cancelled claim 1 without prejudice or disclaimer and have incorporated its subject matter into dependent claim 3. Therefore, since claim 3 now recites expressly that which was present previously by reference, the scope of claim 3 has not been narrowed. The dependency of claims 2 and 4 have been amended accordingly. Entry of these amendments is respectfully requested.

In paragraph 3, spanning pages 2-4 of the Office Action, claims 1-5 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over either JP Abstract 11 166164 (JP '164) or Applicant's admissions regarding the prior art on page 1 of the specification, taken in view of Derwent Abstract XP-002191577 (XP '577).

The Examiner argues that JP '164 discloses a thermally releasable, pressure sensitive adhesive (PSA) sheet comprising a thermally expandable, microsphere-containing PSA layer coated onto a suitable base, and which optionally also contains a rubber-like organic elastic layer (such as Applicants claim in claim 4). With respect to page 1 of Applicant's specification, the Examiner argues that this constitutes an alleged admission that heat peelable PSA sheets can comprise a suitable adhesive coated onto a substrate, the adhesive comprising heat-expandable microspheres, and which results in an adhesive sheet that can be easily peeled from the adherend.

The Examiner admits, at the top of page 3, that each of the primary references lacks a teaching of the claimed surface resistivity performance parameter, i.e., a minimal level of antistatic behavior.

**AMENDMENT UNDER 37 C.F.R. § 1.111**  
U.S. APPLN. NO.: 09/853,787

The secondary reference, XP '577, is cited as allegedly disclosing or suggesting this aspect of the present invention. The Examiner also cited Gutman et al, U.S. Patent 5,508,107, as allegedly evidencing the state of the art, and teaching that antistatic adhesive compositions and accompanying adhesive tapes are well known in the art of transport of electrical current or prevention of electrostatic charge.

The Examiner thus concludes that one of ordinary skill in the art would be motivated by an expectation of the improved adhesive tape performance, in the art of surface protection of electronic parts where high temperature are routinely encountered, to incorporate the teachings of XP '577 regarding the surface resistivity values into the teachings of the primary references.

With respect to XP '577, the Examiner also concedes that this reference is not enabling with respect to how to obtain the low antistatic values it claims to teach.

This rejection is respectfully traversed.

The cited references do not teach or suggest the claimed invention recited in claim 3.

In applicant's independent claim 3, the preferred embodiment of surface resistivity and a maximum surface roughness of 5  $\mu\text{m}$  or less is recited. As described in the present specification in the paragraph bridging pages 14-15, such a maximum surface roughness value leads to good adhesiveness. Applicants respectfully submit that this combination of properties, as recited in independent claim 3, is not taught or suggested by any of the references cited by the Examiner.

In this regard, the Examiner is kindly requested to note the comparative evidence which is in the specification. As shown in the Table at page 31, in Comparative Example 1 the adhesive sheet had a surface resistivity and maximum roughness outside the scope of claim 3, in

**AMENDMENT UNDER 37 C.F.R. § 1.111**  
U.S. APPLN. NO.: 09/853,787

contrast to Examples 1-4 representative of the present invention as defined in claim 3. The data show that the Comparative Example 1 was generally inferior in adhesive force (but note Example 3). Nonetheless, as described at the bottom of page 30, when the pressure-sensitive adhesive sheets obtained in the Examples of the present invention were used, neither static breakage nor adhesion failures, such as undesirable separation of parts from the pressure-sensitive sheet, occurred, and the adhesive sheets could be smoothly peeled off after heating. In contrast, when the pressure-sensitive adhesive sheet obtained in the Comparative Example was used for the temporary fixing of GMR heads, static breakage occurred. Thus, on balance, the evidence establishes unexpected results.

Accordingly, Applicants respectfully submit that the evidence contained in the present specification effectively rebuts any inference of *prima facie* obviousness.

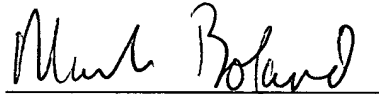
In view of the foregoing, reconsideration and withdrawal of the outstanding rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

**AMENDMENT UNDER 37 C.F.R. § 1.111**  
U.S. APPLN. NO.: 09/853,787

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Mark Boland", is written over a horizontal line.

Mark Boland  
Registration No. 32,197

SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, D.C. 20037-3213  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

Date: November 1, 2002

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please cancel claim 1 without prejudice or disclaimer.

Please amend claims 2, 3 and 4 as follows:

2. (Amended) The heat-peelable pressure-sensitive adhesive sheet as claimed in claim [1] 3, wherein the heat-expandable pressure-sensitive adhesive layer before heating has a center line average surface roughness of 2  $\mu\text{m}$  or less.

3. (Amended) [The heat-peelable pressure-sensitive adhesive sheet as claimed in claim 1] A heat-peelable pressure-sensitive adhesive sheet comprising a substrate and formed on at least one side thereof a heat-expandable pressure-sensitive adhesive layer containing heat-expandable microspheres, wherein the heat-expandable pressure-sensitive adhesive layer has a surface resistivity of  $10^{12} \Omega/\square$  or lower, [wherein] and the heat-expandable pressure-sensitive adhesive layer before heating has a maximum surface roughness of 5  $\mu\text{m}$  or less.

4. The heat-peelable pressure-sensitive adhesive sheet as claimed in claim [1] 3, which further comprises a rubber-like organic elastic layer interposed between the substrate and the heat-expandable pressure-sensitive adhesive layer.